Notice of Allowability	Application No.	Applicant(s)	
	09/765,879	SCHMIDT, BRIAN KEITH	
	Examiner	Art Unit	
	Quang N. Nguyen	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the Amendment filed on 08/07/2006*.

2. ☒ The allowed claim(s) is/are *1-3,7-10,14-17,21-26 and 28*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this Examiner's Amendment was given in a telephone interview with the Applicant's Representative, Ms. Gina A. Bibby (Reg. No. 57,407), on August 17th, 2006.

3. Please amend claims 1, 8, 15-17, 21 and 28 as below:

Claim 1. (Currently amended) A method for providing a virtual namespace for a compute capsule, comprising:

mapping a shared file system into the virtual namespace to create a file system view, the file system view supplying the compute capsule with a private view of a portion of the shared file system;

assigning a virtual token to a resource within the compute capsule, the resource being of the underlying machine and capable of being named by the compute capsule, the compute capsule being configured to provide an encapsulated form that is capable of being moved between computers without restriction, the computers being associated with different physical devices;

interposing a name translator between the resource and the compute capsule;

binding the resource to the virtual token with a name translation table persistently stored within the compute capsule; and

translating the virtual token into the resource using the name translator, if the compute capsule names the resource, wherein the translating is transparent to both an operating system and any application running on the underlying machine, and

wherein the mapping the shared file system into the virtual namespace includes mapping the shared file system into the virtual namespace based on default mappings and custom mappings.

Claim 8. (Currently amended) A virtual namespace for a compute capsule, comprising:

a file system view being created by mapping a shared file system into the virtual name space, the file system view supplying the compute capsule with a private view of a portion of [[a]] the shared file system;

a virtual token configured to represent a resource within the compute capsule, the resource not being shared with other compute capsules, the resource being of the underlying machine and capable of being named by the compute capsule, the compute capsule being configured to provide an encapsulated form that is capable of being moved between computers without restriction, the computers being associated with different physical devices;

a binder configured to bind the resource to the virtual token; and

a name translator configured to be interposed between the resource and the compute capsule, the name translator configured to translate the virtual token into the resource, if the compute capsule names the resource, wherein translation through the name translator is transparent to both an operating system and any application running on the underlying machine, and

wherein the mapping the shared file system into the virtual namespace includes mapping the shared file system into the virtual namespace based on default mappings and custom mappings.

Claim 15. (Currently amended) A computer-readable storage media for directing a computer to create a virtual namespace for a compute capsule, the computer-readable storage media comprising:

instructions for creating a file system view in the virtual namespace by mapping a shared file system into the virtual name space, wherein the file system view provides the compute capsule with a private view of a portion of [[a]] the shared file system;

instructions for assigning a virtual token to a resource within the compute capsule, the resource being of the underlying machine and capable of being named by the compute capsule, the compute capsule being configured to provide an encapsulated form that is capable of being moved between computers without restriction, the computers associated with different physical devices;

instructions for interposing a name translator between the resource and the compute capsule;

instructions for binding the resource to the virtual token with a name translation table persistently stored within the compute capsule; and

instructions for translating the virtual token into the resource using the name translator, if the compute capsule names the resource, wherein translation is transparent to both an operating system and any application running on the underlying machine, and

wherein the mapping the shared file system into the virtual namespace includes mapping the shared file system into the virtual namespace based on default mappings and custom mappings.

Claim 16. (Currently amended) The computer-readable storage media of claim 15, wherein the name translation table provides transparent mobility of a computing environment by being mapped to new machine-local values if the compute capsule is moved to another host.

Claim 17. (Currently amended) The computer-readable storage media of claim 15, wherein the virtual token is only identifiable from within the compute capsule.

Claim 21. (Currently amended) The computer-readable storage media of claim 15, further comprising:

instructions for controlling access to the compute capsule.

Claim 28. (Currently amended) The ~~method~~ virtual namespace of claim 9, wherein the binder is a name translation table.

4. Please cancel claim 27.

5. Pursuant to MPEP 606.01, the title has been changed to read:

-- METHOD AND APPARATUS FOR PROVIDING VIRTUAL NAMESPACES FOR ACTIVE COMPUTING ENVIRONMENTS --

6. Claims 1-3, 7-10, 14-17, 21-26 and 28 are allowed.

7. The following is an examiner's statement of reasons for allowance:

In interpreting the claims, in light of the specification and the applicant's arguments filed on 08/07/2006, the Examiner finds the claimed invention to be patentably distinct from the prior art of records.

Hipp (US 6,848,106) teaches creating a snapshot image of a running application including data and state information, and restoring a running application from the snapshot image **(Hipp, col. 1, lines 21-24)**. Hipp further teaches the snapshot image is created/restored from a snapshot virtual template, which is automatically constructed as the application is running by encoding a system resource in the application's virtual template for every new request made by the applications for a system resource **(Hipp, col. 7, lines 55 – col. 8, line 40)**.

VMware (Technical White Paper – February 1999) teaches VMware Virtual Platform, a thin software layer that allows virtual machines with multiple operating system environments to work in concert with each other sharing files and devices, wherein VMware Virtual Platform can encapsulate a virtual machine and enable it to be moved freely among different physical machines/computers **(VMware, pages 1-2)**.

However, the prior art of records fail to teach or suggest individually or in combination that a computer system and method for providing a virtual namespace for a compute capsule, comprising: mapping a shared file system into the virtual namespace to create a file system view, the file system view supplying the compute capsule with a private view of a portion of the shared file system; assigning a virtual token to a resource within the compute capsule, the resource being of the underlying machine and capable of being named by the compute capsule, the compute capsule being configured to provide an encapsulated form that is capable of being moved between computers without restriction, the computers being associated with different physical devices; interposing a name translator between the resource and the compute capsule; binding the resource to the virtual token with a name translation table persistently stored within the compute capsule; and translating the virtual token into the resource using the name translator, if the compute capsule names the resource, wherein the translating is transparent to both an operating system and any application running on the underlying machine, and wherein the mapping the shared file system into the virtual namespace includes mapping the shared file system into the virtual namespace based on default mappings and custom mappings, as set forth in independent claims 1, 8 and 15.

Claims 1-3, 7-10, 14-17, 21-26 and 28 are allowed because of the combination of other limitations and the limitations listed above.

The examiner finds the Applicant's arguments on pages 8-10 of the Remarks filed on 08/07/2006 to be persuasive. The Applicant argued in substance that the combination of prior art of records fail to disclose the features of the invention including mapping a shared file system into the virtual namespace to create a file system view, the file system view supplying the compute capsule with a private view of a portion of the shared file system, wherein the mapping the shared file system into the virtual namespace includes mapping the shared file system into the virtual namespace based on default mappings and custom mappings, as claimed in the invention to give each capsule a personal view of the underlying file system and to provide capsule owners with the ability to customize their capsule environments within a shared system **(see Specification, pages 15-17)**.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should clearly labeled "Comments on Examiner's Amendment".

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (571) 272-3886.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for the organization is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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